

## Claims

1. Device for removing undesirable gases and particles from the air, which device comprises a purifying chamber through which air to be purified (1) is arranged to pass and having an entrance end provided with a zone (2) producing water dust, said purifying chamber being provided with ion emitting tips (3) operating by high voltage current and with collecting surfaces (4) collecting impurities from the air, **characterised** in that said zone (2) is provided with dies (7) producing water dust having a droplet size of 20 to 40  $\mu\text{m}$ , and that said collecting surfaces (4) are grounded and that the ion emitting tips (3) are directed towards said collecting surfaces (4) and generate ion jets rushing from the ion emitting tips (3) causing water dust and gases and particulate materials attached to the droplets of said dust to be forced against said collecting surfaces (4).
  2. Device according to claim 1, **characterised** in that there is an outlet chamber (5) at the bottom of the purifying chamber for conveying gases and particles separated from the air together with water formed from the water dust away through the entrance end of the purifying chamber.
  3. Device according to claim 2, **characterised** in that water dust is produced by means of an ultrasound-oscillator.
  4. Device according to claim 2, **characterised** in that water dust is produced with compressor-pressurized air.
  5. Method for purifying air, wherein air is purified by means of ion blast provided by high voltage current, **characterised** in that water dust or steam having a droplet size of 20 to 40  $\mu\text{m}$  is sprayed into air to be purified before the air to be purified is led to the ion blast.
- voltage current, **characterised** in that water dust or steam having a droplet size of 20 to 40  $\mu\text{m}$  is sprayed into air to be purified before the air to be purified is led to the ion blast.